

What is claimed is:

1. A plasma switched electroluminescent display comprising:  
an electroluminescent part including a cathode layer, an  
5 electroluminescent layer on the cathode layer, and an anode layer  
on the electroluminescent layer;

a first power supply unit connected electrically to the anode  
layer and disconnected electrically to the cathode layer so as to  
supply the electroluminescent layer with a first power;

a plasma generating part generating a plasma wherein the  
plasma becomes contacted with the cathode layer; and

a second power supply unit generating the plasma by supplying  
the plasma generating part with a second power,

wherein the cathode layer is connected electrically to the  
15 first power supply unit through the plasma.

2. The plasma switched electroluminescent display of claim  
1, further comprising an address electrode installed between the  
plasma generating part and the first power supply unit so as to  
20 connect the cathode layer electrically to the first power supply  
unit through the plasma.

3. The plasma switched electroluminescent display of claim  
2, wherein the first power is applied to the cathode layer by the

plasma via the address electrode.

4. The plasma switched electroluminescent display of claim 1, wherein the cathode layer is a floating electrode.

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5. The plasma switched electroluminescent display of claim 1, wherein the electroluminescent layer is formed selectively one of high molecular organic electroluminescent material, low molecular electroluminescent material using fluorescence, and low molecular electroluminescent material using phosphorescence.

6. A plasma switched organic electroluminescent display comprising:

a lower plate comprising:

a first substrate;

a plurality of sustain electrodes arranged on the first substrate in parallel each other so as to construct a plurality of sustain electrode pairs wherein each of the sustain electrode pairs comprises a pair of the sustain electrodes adjacent to each other;

a dielectric layer on the first substrate including the sustain electrodes; and

a plurality of barrier ribs formed on the dielectric layer to define a plurality of pixel areas

constructing a plurality of rows and columns so that each of the sustain electrode pairs is placed in the corresponding row or column; and

an upper plate comprising:

5 a second substrate;

a plurality of address electrodes arranged on the second substrate so as to leave a predetermined interval each other wherein the address electrodes cross the sustain electrodes at right angle;

a plurality of anode layers arranged on the second substrate so as to be placed next to the address electrodes in the pixel areas, respectively;

15 a plurality of inner insulating/separating layers formed on the second substrate, each of the inner insulating/separating layers having an address electrode opening exposing the corresponding address electrode and an anode opening exposing the corresponding anode;

20 a plurality of electroluminescent layers formed on the inner insulating/separating layers in the pixel areas, respectively, each of the electroluminescent layers contacted with the corresponding anode layer exposed through the anode opening; and

a plurality of cathode layers formed on the

electroluminescent layers, respectively.

7. The plasma switched organic electroluminescent display of claim 6, further comprising a protecting layer formed of MgO on the dielectric layer.

8. The plasma switched organic electroluminescent display of claim 6, wherein the anode layers are formed selectively one of ITO(indium tin oxide) and IZO(indium zinc oxide).

9. The plasma switched organic electroluminescent display of claim 6, wherein each of the anode openings extends to edges of a top of the corresponding anode layer so as to increase a contrast ratio of the display.

10. The plasma switched organic electroluminescent display of claim 6, wherein the electroluminescent layers are formed by one of screen print, ink-jet print, dry film laminate, and vacuum evaporation using a shadow mask.

11. The plasma switched organic electroluminescent display of claim 6, further comprising:  
a plurality of hole injection layers and a plurality of hole transport layers stacked in order between the anode layers

and the electroluminescent layers, respectively;

a plurality of hole blocking layers formed on the electroluminescent layers, respectively; and

a plurality of electron transport layers formed on the hole blocking layers, respectively.

12. A plasma switched organic electroluminescent display comprising:

a lower plate comprising:

a first substrate;

a plurality of sustain electrodes arranged on the first substrate in parallel each other so as to construct a plurality of sustain electrode pairs wherein each of the sustain electrode pairs comprises a pair of the sustain electrodes adjacent to each other;

a dielectric layer on the first substrate including the sustain electrodes;

a plurality of barrier ribs formed on the dielectric layer to define a plurality of pixel areas constructing a plurality of rows and columns so that each of the sustain electrode pairs is placed in the corresponding row or column;

a protecting layer covering the dielectric layer exposed between the barrier ribs; and

a plurality of exposed electrodes running in parallel with each other on portions of the protecting layer corresponding to middle parts of the sustain electrode pairs, respectively; and

5 an upper plate comprising:

a second substrate;

a plurality of address electrodes arranged on the second substrate so as to leave a predetermined interval each other wherein the address electrodes cross the sustain electrodes at right angle;

a plurality of anode layers arranged on the second substrate so as to be placed next to the address electrodes in the pixel areas, respectively;

a plurality of inner insulating/separating layers formed on the second substrate, each of the inner insulating/separating layers having an anode opening exposing the corresponding anode layer;

a plurality of electroluminescent layers formed on the inner insulating/separating layers in the pixel areas, respectively, each of the electroluminescent layers contacted with the corresponding anode layer exposed through the anode opening; and

a plurality of cathode layers formed on the electroluminescent layers, respectively.

13. The plasma switched organic electroluminescent display of claim 12, wherein each of the anode openings extends to edges of a top of the corresponding anode layer so as to increase a contrast ratio of the display.

14. The plasma switched organic electroluminescent display of claim 12, wherein the electroluminescent layers are formed by one of screen print, ink-jet print, dry film laminate, and vacuum evaporation using a shadow mask.

15. The plasma switched organic electroluminescent display of claim 12, further comprising:

a plurality of hole injection layers and a plurality of hole transport layers stacked in order between the anode layers and the electroluminescent layers, respectively;

a plurality of hole blocking layers formed on the electroluminescent layers, respectively; and

a plurality of electron transport layers formed on the hole blocking layers, respectively.

16. A plasma switched organic electroluminescent display comprising:

a lower plate comprising:

a first substrate;

a plurality of sustain electrodes arranged on the first substrate in parallel each other so as to construct a plurality of sustain electrode pairs wherein each of the sustain electrode pairs comprises a pair of the sustain electrodes adjacent to each other;

a dielectric layer on the first substrate including the sustain electrodes; and

a plurality of barrier ribs formed on the dielectric layer to define a plurality of pixel areas constructing a plurality of rows and columns so that each of the sustain electrode pairs is placed in the corresponding row or column; and

an upper plate comprising:

a second substrate;

a plurality of address electrodes arranged on the second substrate so as to leave a predetermined interval each other wherein the address electrodes cross the sustain electrodes at right angle;

a plurality of exposed electrodes in parallel each other on the second substrate between the address electrodes, respectively;

a plurality of anode layers arranged on the second substrate so as to be placed between the address



electrodes and the exposed electrodes in the pixel areas,  
respectively;

5 a plurality of inner insulating/separating layers  
formed on the second substrate including the anode  
layers and the anode layers except the exposed  
electrodes, each of the inner insulating/separating  
layers having an anode opening exposing the  
corresponding anode layer;

10 a plurality of electroluminescent layers formed  
on the inner insulating/separating layers in the pixel  
areas, respectively, each of the electroluminescent  
layers contacted with the corresponding anode layer  
exposed through the anode opening; and

15 a plurality of cathode layers formed on the  
electroluminescent layers, respectively.

17. The plasma switched organic electroluminescent display  
of claim 16, wherein each of the anode openings extends to  
edges of a top of the corresponding anode layer so as to  
20 increase a contrast ratio of the display.

18. The plasma switched organic electroluminescent display  
of claim 16, wherein the electroluminescent layers are formed  
by one of screen print, ink-jet print, dry film laminate, and

vacuum evaporation using a shadow mask.

19. The plasma switched organic electroluminescent display of claim 16, further comprising a plurality of hole transport layers inserted between the anode layers and the electroluminescent layers, respectively.

20. The plasma switched organic electroluminescent display of claim 19, further comprising a plurality of hole injection layers inserted between the anode layers and the hole transport layers, respectively.

21. The plasma switched organic electroluminescent display of claim 16, further comprising a plurality of electron transport layers inserted between the electroluminescent layers and the cathode layers, respectively.

22. The plasma switched organic electroluminescent display of claim 21, further comprising a plurality of hole blocking layers inserted between the electroluminescent layers and the electron transport layers, respectively.

23. The plasma switched organic electroluminescent display of claim 16, further comprising a protecting layer formed of

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